Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Cancelled)

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (Cancelled)

27. (Cancelled)

28. (Previously presented) A network testing system coupled to a first network, the network testing system having a hardware network device included therein, the network device coupled to a second network, the network testing system including software which when executed causes the network testing system to perform operations comprising:

the network testing system processing a start request to establish a communication channel to a client computing device on the first network through the hardware network device

the network testing system receiving a mirror request from the client computing device over the communication channel on the first network, the mirror request specifying the hardware network device

the network testing system sending a request granted packet to the client computing device over the communication channel on the first network

the network testing system accepting a connection request from the client computing device over the communication channel on the first network, the connection request causing the network testing system to wait on the communication channel for mirror protocol packets from the client computing device

the network testing system providing the client computing device access to capabilities of the hardware network device of the network testing system, including:

the network testing system forwarding to the client computing device via the communication channel incoming data units received by the hardware network device over the second network, the incoming data units specifying the hardware network device as a destination

the network testing system receiving from the client computing device via the communication channel outgoing data unit requests to send outgoing data units onto the second network via the hardware network device at one of a speed greater than that available at the client computing device and/or using a protocol not supported by the client computing device and/or at a throughput not possible at the client computing device, the outgoing data unit requests including packet assembly parameters.

29. (Previously presented) The network testing system of claim 28 wherein the communication channel is a tunnel.

30. (Previously presented) The network testing system of claim 29 wherein the client computing device includes a first tunnel device and the network testing system includes a second tunnel device, the tunnel established between the first tunnel device and the second tunnel device.

31. (Currently amended) The network testing system of claim 30 wherein the first tunnel device and the second tunnel device are each network interface devices.

32. (Previously presented) A network testing system comprising:

at least one network device, the network testing system coupled to a first network, each network device coupled to a second network, each network device having at least one network interface associated therewith, the network testing system including software which when executed causes the network testing system to perform operations comprising:

the network testing system processing a start request to establish a communication channel to a client computing device on the first network through a first network device of the at least one network device

the network testing system receiving a mirror request from the client computing device over the communication channel on the first network, the mirror request specifying the first network device

the network testing system sending a request granted packet to the client computing device over the communication channel

the network testing system accepting a network interface connection request from the client computing device over a communication channel on the first network, the network interface connection request including a specified network interface of the first network device, the connection request causing the network testing system to wait on the communication channel for additional requests from the client computing device

the network testing system providing the client computing device access to capabilities of the first network device of the network testing system via the specified network interface, including

the network testing system forwarding to the client computing device via the communication channel incoming data units received by the specified network interface over the second network, the incoming data units specifying the first network device as a destination

the network testing system receiving from the client computing device via the communication channel outgoing data unit requests to send outgoing data units onto the second network via the specified network interface at a speed greater than that available at the client computing device and/or using a protocol not supported by the client computing device and/or at a throughput not possible at the client computing device, the outgoing data unit requests including packet assembly parameters.

33. (Previously presented) The network testing system of claim 32 wherein the client computing device includes a first communication device and the network testing system includes a second communication device, the communication channel established between the first communication device and the second communication device.

34. (Previously presented) The network testing system of claim 33 wherein the first communication device and the second communication device are each network interface devices.

35. (Previously presented) The network testing system of claim 32 wherein the first network is an Ethernet network.

36. (Previously presented) A method for allowing a client computing device to access capabilities of a network device included in a network testing system via a virtual interface, the method comprising:

the network testing system processing a start request to establish a communication channel to the client computing device on a first network through the network device

the network testing system receiving a mirror request from the client computing device over the communication channel on the first network, the mirror request specifying the network device

the network testing system sending a request granted packet to the client computing device over the communication channel

the network testing system accepting a connection over the communication channel from the client computing device

the network testing system associating a network interface of the network device with the communication channel

the network testing system providing the client computing device access to the capabilities of the network device of the network testing system via the network interface, including

the network testing system receiving via the communication channel outgoing data unit requests from the client computing device, the outgoing data unit requests including an identifier of a specified network interface

the network testing system transmitting outgoing data units pursuant to the outgoing data unit requests onto a second network via the specified network interface at a speed greater than that available at the client computing device and/or using a protocol not supported by the client computing device and/or at a throughput not possible at the client computing device,

the network testing receiving over the second network incoming data units
directed to the network interface of the network device

the network testing system forwarding the incoming data units to the client
computing device via the communication channel.

37. (Cancelled)

38. (Original) The method of claim 36 wherein the establishing the communication channel
includes using a transmission control protocol (TCP) socket to create a tunnel.

39. (Previously presented) A network testing system having a processor, a memory, an operating
system, and at least one network card, the processor to execute instructions stored in the
memory to cause the network testing system to perform operations comprising:

the network testing system processing a start request to establish a communication
channel to a client computing device on a first network through a network device included in one
of the network cards

the network testing system receiving a mirror request from the client computing device
over the communication channel on the first network, the mirror request specifying the network
device

the network testing system sending a request granted packet to the client computing
device over the communication channel

the network testing system accepting a connection over the communication channel with
the client computing device

the network testing system associating a network interface of the network device with the
communication channel

the network testing system providing the client computing device access to capabilities of
the network device of the network testing system via the network interface, including:

the network testing system receiving via the communication channel outgoing data unit requests from the computing device, the outgoing data unit requests including an identifier of the network interface associated with the network device

the network testing system transmitting outgoing data units pursuant to the outgoing data unit requests onto a second network via the network interface at a speed greater than that available at the client computing device and/or using a protocol not supported by the client computing device and/or at a throughput not possible at the client computing device

the network testing system receiving over the second network incoming data units directed to the network interface of the network device

the network testing system forwarding the incoming data units to the client computing device via the communication channel.

40. (Cancelled)

41. (Original) The network testing system of claim 39 wherein the opening the communication channel includes using a transmission control protocol (TCP) socket to create a tunnel.

42. (Previously presented) A machine readable medium having instructions stored thereon which when executed by a processor in a network testing system cause a network card in the network testing system to perform operations comprising

the network card processing a start request to establish a communication channel to a client computing device on a first network through a network device included in the network card

the network card receiving a mirror request from the client computing device over the communication channel on the first network, the mirror request specifying the network device

the network card sending a request granted packet to the client computing device over the communication channel

the network card accepting a connection over the communication channel over the first network with the client computing device

the network card associating a network interface of the network device included in the network card with the communication channel

the network card providing the client computing device access to capabilities of the network device of the network card in the network testing system via the network interface, including:

the network card receiving via the communication channel outgoing data unit requests from the computing device, the outgoing data unit requests including an identifier of the network interface associated with the network device included in the network card

the network card transmitting outgoing data units pursuant to the outgoing data unit requests onto a second network via the network interface at a speed greater than that available at the client computing device and/or using a protocol not supported by the client computing device and/or at a throughput not possible at the client computing device

the network card receiving over the second network incoming data units directed to the network interface of the network device

the network card forwarding the incoming data units to the client computing device via the communication channel.

43. (Cancelled)

44. (Original) The machine readable medium of claim 42 wherein the establishing the communication channel includes using a transmission control protocol (TCP) socket to create a tunnel.